AMENDMENTS TO THE CLAIMS:

Set forth below in ascending order, with status identifiers, is a complete listing of all claims currently under examination. Changes to any amended claims are indicated by strikethrough and underlining. This listing also reflects any cancellation and/or addition of claims.

1 to 39. Canceled

40. (Currently amended) A method of integrating a hydrogel to a musculoskeletal tissue, comprising the steps of:

(a) priming the surface of a musculoskeletal tissue by treating the musculoskeletal tissue with a priming agent to create a primed musculoskeletal tissue, wherein the priming agent comprises a polysaccharide with at least one aldehyde group and a first at least one free radical polymerizable group, and the at least one aldehyde group reacts with the musculoskeletal tissue to covalently bind the musculoskeletal tissue and the priming agent;

(b) adding to the primed musculoskeletal tissue a polymerizable agent and a radical photoinitiator, wherein the polymerizable agent comprises a biocompatible polymer having a second at least one free radical polymerizable group; and

(c) reacting the primed musculoskeletal tissue and the polymerizable agent by a radical reaction to create [[a]] an integrated hydrogel covalently bound to the musculoskeletal tissue,

wherein the radical reaction is between the first and second free radical polymerizable groups, and the first and second free radical polymerizable groups are each independently selected from the group consisting of an acrylate, diacrylate, oligoacrylate, methacrylate, dimethacrylate, and oligo methacrylate.

41. Canceled

42. (Previously presented) The method of claim 40, wherein the musculoskeletal tissue is disposed in a mammal.

43. (Previously presented) The method of claim 40, wherein the polysaccharide is chondroitin sulfate.

44 and 45. Canceled

46. (Previously presented) The method of claim 40, wherein the reacting step comprises exposing the primed musculoskeletal tissue and the polymerizable agent to a source of electromagnetic radiation.

47. (Previously presented) The method of claim 40, wherein the polymerizable agent comprises biologically active material.

48. (Previously presented) The method of claim 47, wherein the biologically active material comprises autologous cells.

49. (Previously presented) The method of claim 47, wherein the biologically active material comprises a growth factor.

50 to 59. Canceled

60. (Previously presented) The method of claim 46, wherein the musculoskeletal tissue is a bone or cartilage tissue.

61. (Previously presented) The method of claim 46, wherein the electromagnetic radiation is ultraviolet radiation.